

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
4 January 2001 (04.01.2001)

PCT

(10) International Publication Number
WO 01/00843 A2

(51) International Patent Classification ⁷ :	C12N 15/31, 15/61, 1/21, 9/90, C07K 14/34, C12P 13/08, C12Q 1/68	199 33 004.2 199 33 005.0 199 33 006.9	14 July 1999 (14.07.1999) 14 July 1999 (14.07.1999) 14 July 1999 (14.07.1999)	DE DE DE
(21) International Application Number:	PCT/IB00/00923	60/148,613	12 August 1999 (12.08.1999)	US
(22) International Filing Date:	23 June 2000 (23.06.2000)	199 40 764.9 199 40 765.7 199 40 766.5	27 August 1999 (27.08.1999) 27 August 1999 (27.08.1999) 27 August 1999 (27.08.1999)	DE DE DE
(25) Filing Language:	English	199 40 832.7 199 41 378.9	27 August 1999 (27.08.1999) 31 August 1999 (31.08.1999)	DE DE
(26) Publication Language:	English	199 41 379.7 199 41 394.0 199 41 396.7 199 41 380.0	31 August 1999 (31.08.1999) 31 August 1999 (31.08.1999) 31 August 1999 (31.08.1999) 31 August 1999 (31.08.1999)	DE DE DE DE
(30) Priority Data:				
60/141,031	25 June 1999 (25.06.1999)	US		
199 30 476.9	1 July 1999 (01.07.1999)	DE		
60/142,101	2 July 1999 (02.07.1999)	US		
199 31 415.2	8 July 1999 (08.07.1999)	DE		
199 31 418.7	8 July 1999 (08.07.1999)	DE		
199 31 419.5	8 July 1999 (08.07.1999)	DE		
199 31 420.9	8 July 1999 (08.07.1999)	DE		
199 31 424.1	8 July 1999 (08.07.1999)	DE		
199 31 428.4	8 July 1999 (08.07.1999)	DE		
199 31 434.9	8 July 1999 (08.07.1999)	DE		
199 31 435.7	8 July 1999 (08.07.1999)	DE		
199 31 443.8	8 July 1999 (08.07.1999)	DE		
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199 31 541.8	8 July 1999 (08.07.1999)	DE		
199 31 573.6	8 July 1999 (08.07.1999)	DE		
199 31 592.2	8 July 1999 (08.07.1999)	DE		
199 31 632.5	8 July 1999 (08.07.1999)	DE		
199 31 634.1	8 July 1999 (08.07.1999)	DE		
199 31 636.8	8 July 1999 (08.07.1999)	DE		
199 32 125.6	9 July 1999 (09.07.1999)	DE		
199 32 126.4	9 July 1999 (09.07.1999)	DE		
199 32 130.2	9 July 1999 (09.07.1999)	DE		
199 32 186.8	9 July 1999 (09.07.1999)	DE		
199 32 206.6	9 July 1999 (09.07.1999)	DE		
199 32 227.9	9 July 1999 (09.07.1999)	DE		
199 32 228.7	9 July 1999 (09.07.1999)	DE		
199 32 229.5	9 July 1999 (09.07.1999)	DE		
199 32 230.9	9 July 1999 (09.07.1999)	DE		
199 32 922.2	14 July 1999 (14.07.1999)	DE		
199 32 926.5	14 July 1999 (14.07.1999)	DE		
199 32 928.1	14 July 1999 (14.07.1999)	DE		
(71) Applicant:	BASF AKTIENGESELLSCHAFT [DE/DE]; D-67056 Ludwigshafen (DE).			
(72) Inventors:	POMPEJUS, Markus; Wenjenstr. 21, D-67251 Freinsheim (DE). KRÖGER, Burkhard; Im Waldhof 1, D-67117 Limburgerhof (DE). SCHRÖDER, Hartwig; Goethestr. 5, D-69226 Nussloch (DE). ZELDER, Oskar; Rossmarktstr. 27, D-67346 Speyer (DE). HABERHAUER, Gregor; Moselstr. 42, D-67117 Limburgerhof (DE).			
(81) Designated States (national):	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.			
(84) Designated States (regional):	ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,			

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(54) Title: CORYNEBACTERIUM GLUTAMICUM GENES ENCODING METABOLIC PATHWAY PROTEINS

(57) Abstract: Isolated nucleic acid molecules, designated MP nucleic acid molecules, which encode novel MP proteins from *Corynebacterium glutamicum* are described. The invention also provides antisense nucleic acid molecules, recombinant expression vectors containing MP nucleic acid molecules, and host cells into which the expression vectors have been introduced. The invention still further provides isolated MP proteins, mutated MP proteins, fusion proteins, antigenic peptides and methods for the improvement of production of a desired compound from *C. glutamicum* based on genetic engineering of MP genes in this organism.

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